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Implementing a New Tool to Predict the Risk of Intimate Partner Violence in Rural China

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Abstract

Most of current scales for assessing intimate partner violence (IPV) were developed for Western populations. The Chinese Risk Assessment Tool for Victims (CRAT-V) was a new scale evaluating the risk of IPV, which was developed based on Chinese populations in the context of Chinese culture. To determine whether the CRAT-V could add further value to research involving IPV and violence against women in rural China, we sought to implement the CRAT-V and to explore its factor structure among a rural population in the mainland of China. This study included women from rural Sichuan Province of China, who aged 16 years and older, had been living locally for at least 2 years, and reported that they were married or in a relationship in the preceding year. A total of 670 participants completed the CRAT-V during the field survey. We utilized exploratory factor analysis to validate the factor structure of CRAT-V. The Cronbach's alpha of the CRAT-V was 0.90, indicating good reliability. The CRAT-V reported that 45.07% (302/670) of participants were in risk of IPV, and the risk was higher in women who were 16 to 29 years old, having 7 years and higher education, and living in stem families. The CRAT-V fit a 5-factor model including healthy relationship, jealous feeling, jealous reaction, stressful living condition, and sexual abuse. Our findings provided support for using the CRAT-V as a culturally sensitive measure to predict the risk of experiencing IPV in China, and lend insights into factors that may contribute to timely IPV prevention and intervention.

Keywords

cultural contexts; predicting intimate partner violence; intimate partner violence; violence against women

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Authors' Note

The Ethics Committee of Sichuan University approved the protocol to carry out the study (No.2011004), and the University of Rochester Research Subjects Review Board approved analyses of the de-identified data.

Declaration of Conflicting Interests

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Background

Violence, including intimate partner violence (IPV), against women has been identified as a global problem and a public health concern (Krantz & Garcia-Moreno, 2005; World Health Organization [WHO], 2005). The WHO reported the prevalence of violence against women, including physical and/or sexual violence from intimate partners and sexual violence from nonpartners, was 35% worldwide (WHO, 2014). Despite much being known about IPV against women worldwide, very little is known about IPV in China. In 2000, one of the first large-scale studies was conducted in eight areas of seven provinces and cities of China, and reported the ever prevalence of physical and mental violence was 34.8% and 55.6%; and the prevalence of physical and mental violence in the previous year was 31.6% and 52.4% (Yi, Wei, Ying, & Xiaoliu, 2012). Since 2000, research have used the Conflict Tactics Scale (CTS), the Revised Conflict Tactics Scale (CTS2), the Childhood Trauma Questionnaire-28 item Short Form (CTQ-SF), the WHO Multicountry Study on Women's Health and Life Experiences Questionnaire, and self-designed IPV questions in China (Bernstein et al., 2003; Straus & Douglas, 2004; Straus, Hamby, Boney-McCoy, & Sugarman, 1996; WHO, 2014). For example, with the use of CTS, a study in 2009 reported the prevalence of physical, psychological, and sexual violence against women in the past 12 months was 10.1%, 39.7%, and 13.5% in Yangzhou city (Sha et al., 2009). With the use of CTS2, a study in 2006 reported that the lifetime prevalence of physical, psychological, and sexual violence against women by spouses was 14.0%, 37.25, and 7.7% in rural areas of Jilin, Anhui, and Chongqing (Zhao, Guo, Wang, Wu, & Wang, 2006), and, in 2014, another study compared the overall prevalence of IPV between the rural-to-urban migrant women and local women by CTS2S, which was 41.2% and 39.2% (Pan, Hall, & Ling, 2014). Despite the fact that these Western-developed tools have been applied worldwide, it is unknown whether they can assess the unique cultural factors or risks for Chinese IPV female victims, and, for example, these factors/risks include in-law conflicts (Chan, Brownridge, Tiwari, Fong, & Leung, 2008; Chan et al., 2009; Lee, Yip, Leung, & Chung, 2004; Leung, Kung, Lam, Leung, & Ho, 2002; Liu & Chan, 1999; Meng, 2002), "face" (Chan, 2012b; Gao, 1998; Hu, 1944), poor understanding of violence concept (S. Sun, 2006; F. Sun, Lou, Cheng, & Tu, 2012; Zhao et al., 2006), and traditional and Confucian values of gender roles and gender expectations (Y. Li et al., 2005; Z. Li, Cheng, & Wang, 2003; Parish, Wang, Laumann, Pan, & Luo, 2004; Xu et al., 2005).

Chan developed the Chinese Risk Assessment Tool for Victims (CRAT-V) based on data from women living in Hong Kong with their husbands or partners, and compared it with the CTS2, which was developed initially with U.S. samples (Chan, 2012a, 2012bb). When Chan initiated the development of the CRAT-V, he considered two culturally specific concepts (in-law conflicts and "face") that have been shown to be associated with IPV in Chinese populations.

In-law conflicts, specifically conflicts between a mother-in-law and daughter-in-law, play a very important role in Chinese women's health (Chan et al., 2008; Chan et al., 2009; Lee et al., 2004; Leung et al., 2002; Liu & Chan, 1999; Meng, 2002). Traditional Chinese culture emphasizes a strong hierarchy in both society and in families and requires a wife to serve and obey not only her husband but also her mother-in-law; meanwhile, in Chinese culture,

people traditionally tend to avoid direct conflicts so as to keep the relational harmony (Song & Zhang, 2012). Hence, when a wife lives with in-laws and conflicts emerge, both sides rely on the husband/son to solve the conflicts, and, consequently, the mother–son relationship and the mother–daughter-in-law relationships may profoundly influence the couple. Studies in Chinese population have indicated that in-law conflict is a risk factor of IPV, and the odds ratio (OR) for IPV victimization in preceding year ranged from 2.58 to 3.66 (Chan et al., 2008; Y. Li et al., 2005; Z. Li et al., 2003; Tiwari et al., 2008).

Face (“*lian*” or “*mian zi*” in Chinese) is a complex idea that relates to notions of personal dignity and prestige (see Appendix); while it reflects individual self-perception, it is most evident when viewed in social contexts (Bedford, 2004; Buckley, Clegg, & Tan, 2006; Gao, 1998). It is more nuanced than the Western use of “saving face,” which largely denotes efforts to avoid humiliation (Chan, 2012b). The efforts to attain or maintain *face* influence reactions toward conflicts (Chan, 2012b; Gao, 1998; Hu, 1944). As in traditional Chinese culture, men are viewed as the authority figures of families, and women should obey their husbands. Hence, once men lose or may lose their faces in front of others, violence against their wives or partners has then become a possible way to not only save face but also gain face as well as show off the dominance and masculine. For example, a Chinese study recruiting samples from Beijing, Shanghai, and Hong Kong showed that an “acquisitive face orientation,” actively wanting to gain or acquire face by men, in particular, was positively associated with both physical and psychological IPV (Chan, 2012b; Chou, 1997).

Despite the fact that, during the development of the CRAT-V, items related to “face” were excluded from the final model, the CRAT-V was developed and validated in a Chinese sample, and utilized items that were not crime-related which may encourage victims to report IPV (Chan, 2012a). Thus, we believed the CRAT-V may be more sensitive and suitable for Chinese populations to predict the risk of IPV, as compared with Western-developed tools.

The CRAT-V contains 30 items assessing IPV from five perspectives: in-law conflict, relationship distress, jealousy, stressful conditions, and sexual abuse history. Twenty-nine questions are quarter scaled, and one question is dichotomous. This tool applies the score of each perspective to an equation and then calculates the probability of IPV. According to Chan’s research, an individual whose probability was over 6.5% would be identified as in the risk of IPV; moreover, the sensitivity and specificity in the Hong Kong sample were 74.0% and 68.3%, respectively (Chan, 2012a).

Though the CRAT-V was a newly developed tool based on the Chinese population in Hong Kong that were influenced by both Chinese and Western cultures, we aimed to extend Chan’s study to rural areas in mainland China which represented the very traditional Chinese culture, so as to determine whether the CRAT-V adds further value to research involving IPV and violence against women in rural China, we sought to implement the CRAT-V and to explore its factor structure among a rural population in the mainland of China.

Method

Sample and Sampling

We conducted a field survey in rural areas of Guangyuan City, located in the north of Sichuan Province. “City,” as used in China, often includes a very broad area encompassing an urban core and reaching far into the countryside. The region of Guangyuan City primarily includes rural towns and villages and is economically underdeveloped, with per capita income in 2010 at a level equivalent to US\$2,028 (Statistic Bureau of Sichuan Province China, 2011), one of the lowest in the province.

Our sample was a subset derived from a larger epidemiological study of rural women, intended to assess the prevalence of distress and diagnosed psychopathology, and potential contributing factors (Hou, Cerulli, Wittink, Caine, & Qiu, 2015; Qiu et al., 2016). With the goal of recruiting a socioeco-nomically diverse sample, we used multistage sampling to randomly select three rural towns within the region and from them, three to five villages each, from which we then drew our sample from 13 villages.

As the larger study was a door-to-door survey, we applied probabilistic sampling to include every third women into this study, aged 16 years and older (16 years is the age of consent in China), who had been living locally for at least 2 years, and who reported that they were married or in a relation-ship in the preceding year. They provided oral consent to participate in the study. Before the study began, we excluded women if they had a previous diagnosis of any severe mental or cognitive problems based on registration lists provided by local hospitals, which would impede their abilities to com-prehend the questions. Examples included schizophrenia, paranoia, and men-tal retardation. Participants were compensated for their time with toiletry items (such as toothpaste and soap) worth 5 Yuan (about US\$0.8).

Measures

Demographic Information Questionnaire.

We designed a demographic ques-tionnaire to collect sociodemographic information from participants. Items included age, marital status, education, and family structure including nuclear family (a pair of adults living with their children), stem family (a pair of grandparents living with their children and grandchildren), joint/expanded family (more than two related nuclear and/or stem families living in a single household).

CRAT-V.

The CRAT-V consists of 30 items that describe participants’ feelings, thoughts, living status, and experiences during the past 12 months. Except answers to in-law conflict and sexual abuse, which are dichotomized (yes, no), all other responses are formatted in a 4-point Likert-type scale (strongly disagree, disagree, agree, strongly agree). Each answer was assigned a score. Researchers can calculate the score for each domain by summing up the scores. The CRAT-V provides a model equation to calculate the probability of a participant potentially experiencing IPV, and we adopted the cutoff point at 6.5% to identify whether a participant was in the risk of IPV (Chan, 2012a):

$$\begin{aligned}
 V &= -8.44 = 1.12X_1(\text{In-law conflict}) + 0.88X_2(\text{Relationship distress}) \\
 &+ 0.79X_3(\text{Jealousy}) + 0.89X_4(\text{Stressful conditions}) \\
 &+ 1.91X_5(\text{Sexual abuse history}) \\
 P(\text{IPV}) &= \text{Exp}(V)/(1 + \text{Exp}(V))
 \end{aligned}$$

There were three items related to sexual abuse in the original CRAT-V: (a) “someone forced me to look at or touch his/her private parts (sex organs), or he/she looks at or touches your private parts (sex organs) against your will”; (b) “someone forced me to have sex with him/her (sexuality, anal sex or oral sex)”; (c) “someone has done other things to me (except the two scenarios above), and now I’m sure it’s sexual assault.” The score of sexual abuse was either zero or one, and it only scored one even if there were more than one yeses to any of the three questions. We concerned that asking detailed questions about sexual abuse might result in rural participants discontinuing the survey before completion; hence, we substituted a single item: “have you ever been sexually violated or assaulted,” without changing the algorithm to calculate the probability of IPV. The CRAT-V we revised and applied is shown in Table 1.

Analysis.

We applied exploratory factor analysis (EFA) to examine the factor structure of the CRAT-V. We used Maximum likelihood method in EFA, a type of Structural Equation Modeling (SEM), which allows researchers to determine the underlying structure of a set of observed factors, to identify the nature and number of latent factors, and to estimate the strength of relationships between latent and observed factors (DeCoster, 1998; Fabrigar, Wegener, MacCallum, & Strahan, 1999; Norris & Lecavalier, 2010). Each latent factor should contain more than three observed factors (MacCallum, 1990). Both EFA and confirmatory factor analysis (CFA) are based on the common factor model within which common factors, unique factors, and errors of measurement will assess measured variables. Unlike CFA, EFA does not need a priori hypotheses about the underlying structure of observed factors (DeCoster, 1998; Norris & Lecavalier, 2010); thus, it has been widely applied in early phases of scale development (Hurley et al., 1997). Mean-while, we chose chi-square test, comparative fit index (CFI), Tucker–Lewis index (TLI), root mean square error of approximation (RMSEA) and RMSEA 95% confidence interval (CI), and standardized root mean square residual (SRMR) to evaluate the model. Criteria to assess candidate models include (Byrne, 2012) the following: the lower chi-square value and degrees of free-dom, the better the model; the larger CFI and TLI values, the better the model; the closer SRMR and RMSEA values to zero, the better the model. In this study, the cutoff for factor loading was 0.4. We calculated Cronbach’s alpha to assess internal reliability. We also applied chi-square tests to compare IPV screening results within demographic groups.

For IPV, we used a cutoff probability at 6.5% for the CRAT-V. In our study, statistical significance was established at $p < .05$. Mplus statistical package (Version 7.2; Muthén & Muthén, 2012) was used for all analyses.

Results

Demographic Information and the Risk of IPV

At the end of field survey, we recruited 670 women who were eligible for the IPV study and completed surveys.

Participants' ages ranged from 18 to 78 years, with a mean of 44.87 ± 12.65 years. A majority of participants were married (650, 97.01%). Overall, participants were not well educated—198 of them (29.55%) had no education, and 274 of them (40.90%) had received 1 to 6 years' education; only 198 of them had received education more than 6 years. The range of family structures included nuclear family: 265 (39.55%), stem family: 379 (56.57%), and joint/extended family: 34 (5.07%).

Among the 670 women surveyed, we detected 302 (45.07%) who were in risk of IPV based on the CRAT-V. More importantly, we found the risk of IPV was higher in women who were 16 to 29 years old, have 7 years and higher education, and are living in stem family (see Table 2).

Characteristics of the CRAT-V

In this study, the Cronbach's alpha of the CRAT-V was 0.90, indicating good reliability.

To explore the factor structure of the CRAT-V, we used EFA, as discussed previously. EFA results showed that a 5-factor model was the best fitting with the lowest chi-square, *df*, SRMR, RMSEA, RMSEA 95% CI values, and the highest CFI value (Table 3). Based on factor loading EFA showed in the 5-factor model, we found that items in the CRAT-V assessed five latent factors, except Item 1 (in-law conflicts) with 8.8% of "yes" and Item 17 (feeling of being abandoned) with 9.3% of "very disagree," 69.6% of "disagree," 19.1% of "agree," and 2.1% of "very agree." (see Table 4).

In this study, we found the CRAT-V assessed different IPV risk factors from Chan's original design of the CRAT-V. Chan's 5-factor model contained the following domains: in-law conflict, relationship distress, jealousy, stressful conditions, and sexual abuse history. Our study suggested the 5 factors were better categorized by the following latent variables: healthy relationship, jealous feeling, jealous reaction, stressful living condition, and sexual abuse. Factors' contents were displayed in Table 5.

Discussion

As measured with the CRAT-V, almost half (45.07%) of the participants reported being in risk of IPV from a spouse or partner in the past year, and the number was similar to other Chinese studies that reported the prevalence of IPV (Y. Li et al., 2005; Z. Li et al., 2003; Xu, 1997) and the multisite national WHO study (García-Moreno, Jansen, Ellsberg, Heise, & Watts, 2005). Though CTS2 is the most widely used tool to screen for IPV globally and CRAT-V aims to predict the risk, we believe the CRAT-V has several advantages in China.

First, the CTS2 and the CRAT-V separately focus on respondents' current IPV experiences and IPV risk factors to minimize recall bias. It is worth to note that different with CTS2

which asks participants the frequency of violent experiences, the CRAT-V uses a Likert-type scale for participants to express their levels of agreement or disagreement with statements about conflicts allowing estimations rather than precise determinations. Meanwhile, under the impact of Chinese culture, women may prefer discussing factors related to IPV (such as in-law conflicts and stressful living conditions) or their current somatic symptoms or emotions/feelings other than expressing victimization directly (Kleinman & Kleinman, 1985; Xu, Campbell, & Zhu, 2001). Thus, we believe that, in the context of identifying potential victims and providing timely interventions, the CRAT-V is more suitable for Chinese population, especially for participants with low education and less susceptible to recall biases.

Second, questions in CTS2 require participants to know the meaning of multiple forms of violent behaviors, such as shouting, pushing, slapping, shoving, kicking, threatening, and hitting, and to share common definitions for each. When the CTS2S is applied to groups that hold different definitions from the scale creators, or lack consistent definition within the study population, results may be biased and unpredictable (Dubowitz, Prescott, Feigelman, Lane, & Kim, 2008; Nicolaidis & Paranjape, 2009; Waltermaurer, 2005).

Our exploration of the factor structure of the CRAT-V when used with our rural sample yielded a set of risks different from the original sample. In-law conflict and feelings of being abandoned were not part of the final model. Though including an in-law item appeared to increase the sensitivity and the suitability of the CRAT-V for rural Chinese population, our results suggested that assessing the contribution of in-law conflicts to the CRAT-V results would require more items in the measure instead of a single item. We suggested that items measuring common causes of in-law conflicts would improve the prediction, such as arguments over daily trivial acts, living expense, the jealousy of each other because of the accompany of the husband/son, and the way of raising children/grandchildren. As to the feelings of being abandoned, couples in rural areas usually undertake different parts of agricultural work for their families; thus, women could understand the time cost of their partners' work, which makes the feelings of being abandoned not related to IPV.

We found that the CRAT-V assessed jealous feelings and reactions separately. Studies have found that jealousy was a risk factor for IPV especially for perpetrators, yet these studies did not differentiate jealous feelings from jealous reactions (Foran & O'Leary, 2008; Parish et al., 2004; Varela, 2009; Wang, Parish, Laumann, & Luo, 2009; Wilkinson & Hamerschlag, 2005). A famous Confucian doctrine states that there are three kinds of obedience for women: "*San Cong* (obeying your father before you are married, obeying your husband during marriage, and obeying your sons after your husband dies)" (Tang & Lai, 2008; Taylor & Choy, 2005) (see Appendix). As a result, when the males notice or perceive their spouses' jealous reactions, they may consider the actions as challenges to the male domination in Chinese rural culture and lose their face in public situations, so that the risk of IPV increases. As jealous reactions could be noticed instead of jealous feelings, we believed that it was necessary to differentiate jealous feelings from jealous reactions to predict the risk of IPV in Chinese women.

Finally, the present study found several items that originally belonged to the category of relationship distress estimated stressful living conditions instead. As the items left in the category described the degree of satisfaction participants held toward the relationship, we believed that the category was more likely to predict IPV by assessing the health of a relationship (healthy relationship) as a risk factor instead of distress. Taken together, our results suggested the need to somewhat modify the CRAT-V before using it further to assess IPV in mainland China, and the modifications may include restructuring items into more appropriate categories, adding more specific items about in-law conflicts, adding items about “face,” revising items in the context of China’s dynamic social and economic development, and validating the tool in different regions of mainland China.

We recognized several limitations to our study. As a cross-sectional field study, interviewers were only able to recruit residents at home during the survey days; thus, some who had day jobs may have been missed. The CRAT-V was developed based on a sample of Chinese women from Hong Kong, a metropolitan in China; thus, its utility among a sample from rural regions of China will require further evaluation. For example, we remain uncertain how merging three CRAT-V items exploring sexual abuse into one item may have altered factor analytic results, despite not changing the scoring approach or the probability calculation of IPV. At last, as in mainland China, there are differences between cultures in the north and the south, the east and the west, and the Han and ethnic minorities; hence, rural women in different areas may face various living environments, cultural backgrounds, and customs. Thus, we must be cautious to generalize our results, and we encourage future research to apply the CRAT-V to different settings in China. Nonetheless, we see its significant potential for its use, given its culturally attuned approach. Despite the limitations, the present study applied and tested a culturally sensitive tool predicting the risk of IPV victimization in rural China, stressed the importance of assessing cultural factors to evaluate IPV risk and identify potential victims, and provided insights for the development of timely preventions and interventions.

Conclusion

The CRAT-V, a new tool developed for Chinese population, shows distinct advantages in predicting the risk of IPV over other screening tools with rural Chinese women. IPV is a common phenomenon in rural China, and our results reinforce that contextual factors play critical roles in IPV risk and merit further attention. More importantly, as the CRAT-V is a Chinese culture-based scale and benefits identifying potential victims, we believe this study provides insights into factors that may contribute to timely IPV prevention and intervention.

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Appendix

The translation of Chinese terms

1. “*Lian, or Mian zi* (脸/面子)”: face, related to personal dignity, prestige, and self-perception.
2. “*San Cong* (三从)”: The three obediences women have to follow, including obeying their fathers before they get married, obeying their husbands during marriage, and obeying their sons after their husbands die.

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Table 1.**The Revised CRAT-V.**

Item	Content
In-law conflicts	
1	In the past 1 year, have you ever had any conflicts with your father-in-law or mother-in-law (quarrels or fights)?
Relationship distress	
2	My partner and I did not get along well.
3	My partner treats me well.
4	My partner and I have a very good relationship.
5	My sex life with my partner is good.
6	I have a good social life with my partner.
7	My relationship with my partner is worth the effort I put into.
8	I have thought seriously about ending my relationship with my partner.
9	There are more bad things than good things in my relationship with my partner.
Jealousy	
10	I would hate it if my partner confided in someone besides me.
11	I would hate it if my partner did pay a lot of attention to someone besides me.
12	I would hate it if someone else paid a lot of attention to my partner.
13	I'd feel jealous if my partner were helpful to someone of the same sex as me.
14	I would be mad if my partner flirted with someone else.
15	I would be upset if someone hugged my partner a little too long.
16	I would be upset if my partner hugged someone a little too long.
17	I will feel like be abandoned if my partner is too busy to accompany me.
Stressful conditions	
18	I'm too busy to have meals.
19	My housing is not satisfactory. (e.g., noisy, hot, dilapidated, or having problem with neighbors).
20	My friends pressure me to do things I don't want to do.
21	People at work or school don't get along with me.
22	My partner often nags me.
23	People often interrupt me when I'm trying to get things done.
24	I don't have enough money for my daily needs.
25	I don't like my work or classes.
Sexual abuse history	
26	Have you ever been sexually abused?
27	If happened, did it happen to you before you were 17 or younger?
28	If happened, who did this to you and what was the relation between you and him/her?

Note. In the original CRAT-V, there were three items related to sexual abuse: "someone forced me to look at or touch his/her private parts (sex organs), or he/she looks at or touches your private parts (sex organs) against your will"; "someone forced me to have sex with him/her (sexuality, anal sex or oral sex)"; "someone has done other things to me (except the two scenarios above), and now I'm sure it's sexual assault." We substituted these three items with item 26 in the table. CRAT-V = Chinese Risk Assessment Tool for Victim.

Table 2.

Participants' Characteristics and the Prediction Results of the CRAT-V.

Participants' Characteristics	Total Number (Prevalence of in Risk) (<i>N</i> = 670)	The CRAT-V		χ^2	<i>p</i>
		Not in Risk (<i>n</i> =368)	In Risk (<i>n</i> =302)		
Age					
16–29	106 (56.60%)	46	60	18.015	.001
30–39	103 (53.40%)	48	55		
40–49	228 (46.05%)	123	105		
50–59	155 (36.13%)	99	56		
60–78	78 (33.33%)	52	26		
Relationship status					
Singled	20 (55.00%)	9	11	2.234	.525
Married	650 (44.77%)	359	291		
Education					
No school	198 (35.86%)	127	71	9.797	.007
Less than 6 years	274 (48.17%)	142	132		
7 years and higher	198 (50.00%)	99	99		
Family type ^a					
Nuclear family	265 (42.26%)	153	112	9.747	.008
Stem family	70 (49.19%)	188	182		
Joint/expanded family	34 (23.53%)	26	8		

Note. The CRAT-V was developed to predict the risk of IPV victimization. The prevalence of in risk indicated the percentage of participants who were potential IPV victims.

CRAT-V = Chinese Risk Assessment Tool for Victim; IPV = intimate partner violence.

^aThere was one participant who did not answer the question during the interview.

Table 3.

Models of Exploratory Factor Analysis of the CRAT-V.

Model	χ^2	df	CFI	TLI	SRMR	RMSEA (95% CI)
1-factor model	2932.212	350	0.431	0.386	0.151	0.146 [0.141, 0.151]
2-factor model	1805.227	323	0.673	0.618	0.107	0.115 [0.110, 0.120]
3-factor model	1105.209	297	0.822	0.773	0.055	0.089 [0.083, 0.094]
4-factor model	729.675	272	0.899	0.860	0.046	0.070 [0.064, 0.0760]

Note. CRAT-V = Chinese Risk Assessment Tool for Victim; CFI = comparative fit index; TLI = Tucker–Lewis index; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; CI = confidence interval.

Table 4.

Factor Loadings of the Five-Factor Model of the CRAT-V.

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Item 1	−0.047	−0.101	0.136	0.008	0.203
Item 2	−0.211	0.037	−0.037	0.455	−0.018
Item 3	0.904	0.027	−0.069	−0.009	−0.007
Item 4	0.928	0.063	−0.051	−0.023	−0.012
Item 5	0.705	0.000	0.075	−0.025	0.057
Item 6	0.742	−0.078	0.063	0.012	0.023
Item 7	0.674	−0.082	0.085	0.111	−0.044
Item 8	−0.146	−0.069	0.057	0.492	0.123
Item 9	−0.134	0.012	0.048	0.495	−0.013
Item 10	0.049	0.553	0.192	0.050	0.056
Item 11	−0.001	0.925	0.004	−0.004	−0.025
Item 12	−0.016	0.828	0.085	0.023	−0.020
Item 13	−0.068	0.428	0.429	−0.016	0.046
Item 14	0.019	0.169	0.666	0.010	−0.008
Item 15	0.039	0.006	0.982	0.002	−0.020
Item 16	0.007	0.070	0.918	0.007	−0.014
Item 17	−0.014	0.227	0.151	0.224	0.088
Item 18	0.078	0.064	−0.117	0.371	−0.045
Item 19	0.068	0.098	−0.066	0.545	0.023
Item 20	−0.029	−0.014	0.101	0.549	−0.009
Item 21	0.103	0.028	0.044	0.487	−0.039
Item 22	−0.073	−0.055	−0.004	0.572	0.007
Item 23	0.045	0.102	−0.023	0.561	0.097
Item 24	0.028	0.091	−0.061	0.467	−0.052
Item 25	0.122	−0.048	0.084	0.476	−0.009
Item 26	−0.041	0.010	−0.037	0.080	0.445
Item 27	0.050	0.025	−0.001	−0.025	0.908
Item 28	−0.096	−0.011	−0.006	0.279	0.325

Note. CRAT-V = Chinese Risk Assessment Tool for Victim.

Table 5.

Latent Factors of the CRAT-V.

Latent Factors	Item	Factor Content
Factor 1	3	My partner treats me well.
Healthy relationship	4	My partner and I have a very good relationship.
	5	My sex life with my partner is good.
	6	I have a good social life with my partner.
	7	My relationship with my partner is worth the effort I put into.
	10	I would hate it if my partner confided in someone besides me.
Factor 2 Jealous feeling	11	I would hate it if my partner did pay a lot of attention to someone besides me.
	12	I would hate it if someone else paid a lot of attention to my partner.
	13	I'd feel jealous if my partner were helpful to someone of the same sex as me.
Factor 3 Jealous reaction	14	I would be mad if my partner flirted with someone else.
	15	I would be upset if someone hugged my partner a little too long.
	16	I would be upset if my partner hugged someone a little too long.
	2	My partner and I did not get along well.
Factor 4 Stressful living condition	8	I have thought seriously about ending my relationship with my partner.
	9	There are more bad things than good things in my relationship with my partner.
	19	My housing is not satisfactory. (e.g., noisy, hot, dilapidated, or having problem with neighbors).
	20	My friends pressure me to do things I don't want to do.
	21	People at work or school don't get along with me.
	22	My partner often nags me.
	23	People often interrupt me when I'm trying to get things done.
	24	I don't have enough money for my daily needs.
	25	I don't like my work or classes.
	26	Have you ever been sexually abused?
Factor 5 Sexually abuse	27	If happened, did it happen to you before you were 17 or younger?
	28	If happened, who did this to you and what was the relation between you and him/her?

Note. CRAT-V = Chinese Risk Assessment Tool for Victim.